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THE CHICKEN FARMER

A Vote For Supply Management is a Vote for Fresh, High-Quality Food

We're in Election mode! You may have already noticed literature arriving in your mailbox, candidates knocking at your door, and journalists talking about polling this summer.

Despite previous speculation of a spring election, the Prime Minister chose to dissolve Parliament in early August and go ahead with Canada's first fixed election date, and longest writ period since Confederation. Voters will head to the polls on Monday, October 19. This is the first election in many years that pollsters are predicting a variety of scenarios, including a Conservative, NDP, or Liberal majority or minority government.

It is sure to be a busy summer, with candidates in your area knocking on doors, attending local BBQs, and participating in debates. Why not take advantage of a community BBQ to talk to your local candidates about the benefits of supply management? Bonus discussion points if chicken is on the menu! For those of you in and around urban areas, remind those running in urban areas that Canadian supply-managed farmers put local, fresh, nutritious, high-quality food on their voters' plates every week.

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Chicken Farmers of Canada
Les Producteurs de poulet du Canada

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Chicken Farmers of Canada will continue to engage with federal parties throughout the election and we are encouraging producers to get involved as well. In this issue of *Chicken Farmer*, we have provided you with a copy of a booklet that outlines our industry's key messages to remember when talking to candidates and fellow voters.

Most importantly, the Canadian chicken industry:

- Sustains 78,200 jobs
- Contributes $5.8 billion to Canada's Gross Domestic Product
- Pays $1.9 billion in taxes
- Purchases 2.4 million tons of feed, supporting other farmers in turn

Here are a few tips on how to participate this election:

DO:

- Do attend all candidates' debates, BBQs, community events, etc.
- Do meet with the candidates in your riding
- Do discuss the benefits of supply management, and ask for continued support if elected
- Do make sure candidates and voters alike understand the economic impact the chicken industry has on your community and province
- Do remain positive, encouraging, and hopeful
- Do write letters to the candidates
- Do engage with your candidates publicly on social media

DON'T:

- Don't be passive
- Don't be negative
- Don't be too complicated with your issues – keep it simple
- Don't forget to vote!

Chickenfarmers.ca will also feature an Election Toolkit which will house a variety of tools and guides should you be looking for more ways to get involved this election. The section will also feature key messages and issues, contact information, and sample correspondence. If you have any questions about messages, or want to relay updates on meetings or correspondence with candidates, please contact *cfc@chicken.ca*!

LOOKING FOR MORE WAYS TO GET INVOLVED THIS ELECTION? Check out the tools and guides in the new Election Toolkit on chickenfarmers.ca/for-farmers!

Call For 2015 Research Proposals

The Canadian Poultry Research Council (or CPRC) again issued their annual call for research proposals. Approximately 30 proposals were received and these will be reviewed by a Scientific Advisory Committee as well as CPRC member organizations. Proposals are evaluated for their scientific concept and approach, industry impact, and knowledge transfer and commercialization.

A new approach to the grant review process for was adopted for 2015. It is designed to provide more flexibility and efficiency to both CPRC and the research community, and reduce the time required to make funding decisions while ensuring CPRC and its member organizations continue to support research that meets industry needs.

The research categories for proposals are aligned with the National Research Strategy for Canada's Poultry Sector available on the Research tab at the CPRC website *www.cp-rc.ca*. The Strategy lists nine overlapping research areas and the 2015 call includes seven of these:

1. Genetics
2. Food safety
3. Animal health products
4. Poultry health
5. Poultry welfare
6. Environment
7. Functional and innovative products

For the second year in a row, Chicken Farmers of Canada has allocated funds for a separate project through CPRC to answer specific questions relating to CFC's research priorities. This year's topic is for on-farm trials investigating effective methods of applying organic acids in water and feed for the purpose of reducing bacterial load in broiler chickens. Pathogen reduction is a priority for the federal-provincial-territorial governments and the chicken sector. The use of organic acids is one tool that farmers can employ to reduce pathogens on farm.

For more information on poultry research, visit the CPRC website link above or the Chicken Farmers of Canada page on innovation at *www.chickenfarmers.ca/what-we-do/innovation*. There is also a link there to a page of recent research highlights.

New Funding Makes Canadian Livestock Transport Course More Accessible

A national training and certification program for those who handle and transport farm animals will be made available online, thanks to $180,000 in government funds. The money comes from Growing Forward 2, a five-year federal/provincial initiative that supports a variety of projects in the agriculture and agri-food industries.

The Canadian Livestock Transport (CLT) Certification program was developed in Alberta in 2007 and has had national and U.S. participation since the program was moved to the Canadian Animal Health Coalition (CAHC) in 2013. This has included growing international recognition of CLT as an innovative, pioneering program, and a leading example of industry-driven leadership in livestock and poultry welfare. The overall goal is to help ensure that farm animals in Canada are transported in a safe and humane manner.

Training involves everything from knowing the regulations and proper techniques for the safe handling of animals, to loading capacities and avoiding overcrowding, as well as biosecurity, environmental considerations, equipment, and emergency response. Each of the modules encompasses all aspects of transportation including pre-loading, loading, time in transit, and arrival at the destination.

According to CAHC, re-training is required every three years to maintain certification and the online program will not only make the recertification process more efficient and consistent, but will allow more people across the country to participate. The modules available cover the transportation of poultry, cattle and sheep, hogs, and horses.

CLT currently offers classroom courses and course registration continues to be on the rise. Although voluntary, a growing number of companies that process meat now require drivers and handlers to have this certification. The training is not just for haulers – it was developed with producers, handlers, plant crews, loading crews, enforcement, and management all in mind as they are integral parts of the transportation process.

This is another great example of the innovative programs that protect animal health and welfare in the Canadian livestock and poultry industries.

Program details can be found at *www.livestocktransport.ca.*

Avian Influenza Update

In April this year, the Canadian poultry and egg industries were faced with a second avian influenza outbreak – this time in southwestern Ontario. A total of three farms were infected (two turkey farms and one broiler breeder farm), all located in Oxford County.

Industry and government partners worked together both locally and nationally to manage the situation. Quarantine zones were established, all three premises were depopulated to control the spread of disease, and cleaning and disinfecting (C&D) was completed by July 8, 2015.

The virus detected on these farms was highly pathogenic H5N2 and closely matches the strains identified in B.C. late in 2014 and in Washington State, U.S. This suggests that migratory wild birds were a likely source.

Following the 21-day waiting period after C&D of all premises, the two quarantine zones were lifted on July 20th and 29th, respectively. According to the World Organization for Animal Health (OIE) regulations, once three months have elapsed following C&D with no further infections identified, countries are able to declare their AI free status.

As for the B.C. outbreak from December 2014, Canada was able to notify the OIE on June 3, 2015

that B.C. is considered free of notifiable avian influenza. It is hoped that we will be able to do the same in regards to the Ontario outbreak as of October 8, 2015.

The Canadian Food Inspection Agency is working with Canada's trading partners to return to normal trading requirements as quickly as possible.

The CFIA has created a new webpage to make it easier to access their electronic resources on avian biosecurity. The page can be accessed from the URL *www.inspection.gc.ca/birds*. These resources may be particularly important to review ahead of the fall bird migration when wild birds will be again travelling across North America to head south for the winter.

While the number of infected premises in the United States was much greater, the outbreak there now appears to be slowing down. The number of detected cases was highest in Minnesota, Iowa, Wisconsin and South Dakota and the last confirmed detection was on June 17, 2015.

Examining Antibiotic Reduction

Chicken Farmers of Canada has assembled a working group of farmers, veterinarians, processors, feed mills and academia to develop recommendations for the reduction of antimicrobial use in Canadian chicken production.

This working group will complete this mandate by considering all aspects and identifying issues related to antimicrobial use including flock health and welfare, disease pressures, operational challenges, and regulatory burdens. A report from this group is expected to be provided in the fall of 2015 for consideration and for further engagement with industry stakeholders.

These discussions closely mirror the federal government's Framework for Antimicrobial Resistance which focusses on surveillance, stewardship and innovation and includes concrete goals to address antimicrobial resistance.

Existing government initiatives include removing growth promotion claims from antibiotic labels, modifying the own-use importation and active pharmaceutical loopholes, and increasing veterinary oversight of feed and water antibiotic use by December 2016. Future government initiatives will include increased surveillance of antimicrobial use in the agriculture sector and a focus on reduction strategies.

The Canadian government's approach to antimicrobial resistance is much in tandem with the United States, whose federal government has also developed an antimicrobial resistance strategy and who recently had 150 signatories highlight their commitments to implement changes over the next five years to slow the emergence of resistant bacteria and prevent the spread of resistant infections.

Many U.S. restaurant chains and poultry processors have recently announced their intentions to reduce or remove antimicrobials. These include:

- McDonald's U.S. which has made a commitment to only source chicken raised without antibiotics that are important to human medicine by 2017
- Tyson which has announced it is striving to eliminate the use of human antibiotics by September 2017
- Costco which is working toward eliminating the sale of chicken and other meat from animals raised with antibiotics that are vital to fighting human infections
- Pilgrim's Pride which expects 25% of its chicken will be raised without antibiotics by 2019
- Perdue which has indicated 95% of its chickens never receive any human antibiotics, and the remainder may receive them only for a few days when prescribed by a veterinarian

This initiative is a component of our Antimicrobial Use Strategy. Elements of the strategy include surveillance, education, research and reduction of use. Further information can be found at *www.chickenfarmers.ca/what-matters-to-us/antibiotics*.

White Meat Versus Dark Meat. Is There a Difference Nutritionally?

Doug Cook, RD, MHSc, CDE

Dark meat versus white meat; people tend to fall into one of two camps. When it comes to choosing one over the other, it usually boils down to taste and texture preferences, but is there more than meets the eye?

For years, through the lens of cardiac health, dietitians, nutritionists, and other professionals have often recommended white meat over dark meat because white meat has less fat, less saturated fat, and therefore less calories compared to dark meat, but what about the other nutrients in chicken?

Fast forward to today where the war of fat has tempered; fat and saturated fat are not the dietary villains we once thought they were. With that, a more comprehensive comparison between white meat and dark meat is possible.

Beyond the differences in fat and calories, there are several other differences in the amount of micronutrients – vitamins and minerals – between the two cuts of meat.

At first glance, it seems like there's a large difference between the calorie and fat content of white and dark meat. Chicken breast has 146 calories per 100 g serving compared to chicken legs and chicken thighs with 155 and 175 calories respectively; similarly with total and saturated fat. Looking at the absolute numbers for example, it's true that there is more fat in chicken thighs, 8.43 g, compared to chicken breast with 1.73 g. But, keeping the big picture in mind, this difference will not make a big impact on one's diet over the course of the day, even over weeks and months.

When it comes to healthy eating, the primary focus should be on choosing minimally-processed nutritious foods such as fresh meats and poultry, fish, fruits, vegetables and whole grains with an eye on portions versus absolute calorie-counting.

NUTRIENTS	NUTRITIONAL COMPARISON – WHITE VS. DARK MEAT 100 g SERVING		
	CHICKEN THIGHS (SKINLESS)	CHICKEN LEGS (SKINLESS)	CHICKEN BREAST (SKINLESS)
CALORIES	175 kcal	155 kcal	146 kcal
FAT	8.43 g	6.59 g	1.73 g
SATURATED FAT	2.60 g	1.90 g	0.59 g
PROTEIN	25.95 g	23.84 g	32.58 g
% DAILY VALUE			
B1	11	10	7
B2	16	19	7
B3	36	27	74
B12	42	60	14
IRON	7	7	3
ZINC	25	25	11
PHOSPHORUS	19	18	24
POTASSIUM	8	9	12

CHICKEN BREASTS

Given the physiological differences in the muscle tissue between breast meat and the legs and thighs, there are some differences in the vitamin and mineral content of each cut. Breast meat has fewer B vitamins, zinc and iron, but more phosphorus and potassium. Most people think of vegetables and fruit, especially bananas, as being the best sources of potassium, but meats such has chicken are excellent sources as well, containing as much potassium as a medium banana.

Chicken breast meat also provides more protein per 100 g serving than either legs or thighs do. In this case, the differences are meaningful; chicken breast has over 8 more grams of protein than legs do and over 6 more grams than thighs. These differences can add up for those with smaller appetites such as young kids or the elderly; it can be easier for individuals in both of these age groups to get full before meeting their protein requirements. While the total amount of protein for children doesn't seem like a lot, they need more than adults on a body-weight basis.

Total protein requirements for children aged 1–3, 4–8, and 9–13 years of age are 13 g, 19 g, and 34 g respectively. Those over 70 years of age require 46 g of protein per day.

With 28 g of protein per 85 g (or 3 oz portion) chicken breasts, with high levels of protein on a per serving basis, can help to make every bite count.

CHICKEN THIGHS AND LEGS

Dark cuts have more B vitamins such as B1, B2, B3, and B12, as well as, more zinc and iron; two minerals that are essential for growth, maintenance, and repair.

According to the Canadian Community Health Survey, about 18% of adults between the ages of 19 to 50 fail to meet the minimum recommended requirement for zinc and for those over the age of 71, another 22% miss the mark. It's a similar story for iron; just over 20% of adults between the ages of 19 to 50 are not getting enough iron. Dark meat chicken contains both of these minerals. Chicken thighs are high in, and chicken legs are an excellent source of, zinc. Both chicken thighs and legs are a source of iron.

Whether you are using white meat or dark, chicken is a nutritious and relatively-inexpensive food. Both cuts can easily be a part of a healthy diet; each providing versatility to recipes and meeting the preferences of all members of the family. There's no need to lose sight of the forest for the trees and think that white meat is the only way to go because it is a little lower in fat and calories. Dark meat is nutritious and both dark and white meat make up a balanced and varied diet.

Investigating New Options for Humane Chicken Euthanasia

Euthanasia (a word derived from the Greek, meaning a good death) is a difficult subject. However, timely euthanasia, carried out by trained individuals, is a critical component of flock health management and essential to good bird welfare on-farm.

Although critical, these end-of-life decisions are never easy. Every farm is different and every farmer has a different comfort level with performing euthanasia. It is for this reason that various options to accomplish euthanasia must be available, and why Chicken Farmers of Canada have funded research to evaluate a new euthanasia tool.

Karen Schwean-Lardner, Assistant Professor in Poultry Science, and Jenny Fricke, Poultry Extension Veterinarian, from the University of Saskatchewan completed a small study to evaluate the Koechner's Euthanizing Device (or KED) as a euthanasia tool for poultry.

The KED is a mechanical cervical dislocation tool that is designed for use in various sizes of poultry. The device is sold in three separate sizes and the smallest one was compared to manual cervical dislocation for broilers of 12, 24, and 31 days of age. The other two sizes of KEDs are better suited for bigger, older birds.

Reflex actions of the birds were observed post-euthanasia (specifically, pupil response to light), and the vertebral column of some birds was examined to determine if crushing was occurring. The American Veterinary Medical Association guidelines do not permit crushing of the vertebrae as the primary means of death because it may not render the animal insensible (so they are still able to feel pain) and time to death is longer.

Every farm is different and every farmer has a different comfort level with performing euthanasia.

Overall, the study conclusions were as follows:

1. Mechanical cervical dislocation by a trained individual may cause the bird to reach termination of pupil responses (which may indicate death) at the same rate or within seconds of manual cervical dislocation.
2. The choice of a KED is a better welfare alternative than a Burdizzo, as there was no evidence of vertebral crushing (no comminuted fractures) provided that the appropriate sized device relative to bird age/size was selected, and positioned appropriately.
3. If using a KED device, the correct choice of size is very important. Using the incorrect size can result in significantly longer time to death for the bird.
4. The technique used is important.
5. Based on this data, if a KED is to be used for commercial broiler euthanasia to approximately 31 days of age, the KED 1 device is the appropriate size.

It should be emphasized that this is a preliminary study to determine if there might be acceptability of this device, and is specific to this one tool only. The results do not extend to other mechanical cervical dislocation tools and each different device needs to be properly validated before being used. The decision of what euthanasia method to use on-farm should always be done in consultation with your vet.

The information gained from this project will contribute to a more thorough study currently being funded through the Canadian Poultry Research Council to examine the KED along with other euthanasia methods. CFC is proud to fund innovative research such as this, and is committed to continually improving on-farm practices to provide options for farmers and to protect the health and welfare of our flocks.

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